

## METHODS OF DIAGNOSING MULTIDRUG RESISTANT TUBERCULOSIS

### ABSTRACT OF THE DISCLOSURE

[94] The invention relates to the discovery that a putative gene of

5 *Mycobacterium tuberculosis* with no previously identified function is responsible for the  
ability of the bacterium to activate thioamide drugs. Since *M. tuberculosis* has a low rate of  
synonymous mutations, all mutations in this gene, identified as Rv3854c and now termed  
“EtaA,” are expected to inhibit the ability of a bacterium with the mutation to activate a  
thioamide or thiocarbonyl drug. Thus, detecting a bacterium with a mutation in this gene  
10 indicates that the bacterium is resistant to treatment with thioamides.

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